



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D6101-005
Job Sheet 170395



5038651

Part No: D6101-005

Job Qty: 60 ea

Part Name: Saddle Billet



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 1/16/18

Job Tracking No:

Due Date: 2/6/18

Created By: Diane Baker

Type: Stock

Description:

Note: DWG REV B

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Purchasing	60 pcs		2/6/18	0.00	0.00	Purchasing		DA
110	Packaging	60 pcs		2/6/18	0.00	0.00	Packaging2		1
120	QC	60 pcs		2/6/18	0.00	0.00	QC6		PD 18-02-03
130	Packaging	60 pcs		2/6/18	0.00	0.00	Packaging3-2		SB 18/02/04
140	QC21-SA	60 Ea		2/6/18	0.00	0.00	QC21		M65 FEB 05 2018

Part Op 100 - Issue P/O: 038795 b) 5.00" x 8.250" x 2.50" thick d) Grain direction along 5.00" length

Descriptions: 110 - Ensure material certification is attached

120 - Ensure Material certification comply to Dwg D6101

130 - LOCATION: MAT041

JAN 16 2017 213

Job Allocations

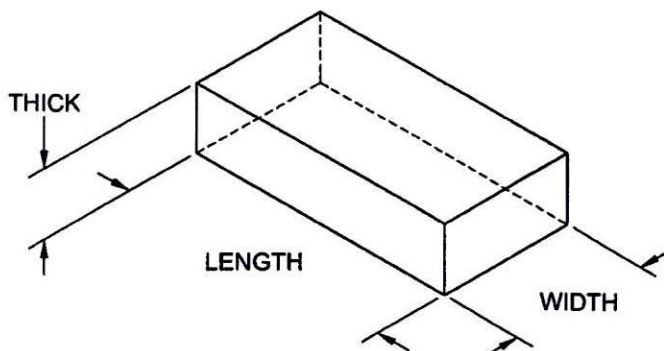
Operation	Component Part	Required	Inventory	Allocated	Std Qty
100-Purchasing	D6101-005P	60	0	0	0

Part Specifications

Specifications could not be found.

Plex 1/16/18 9:23 AM dart.baker.diane

SPECIFICATION CONTROL DRAWING



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

B ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
D6101-015	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

RELEASED
09/07/15/WP

B	ADDED D6101-015/-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.		D6101	SHEET 1 OF 1
APPROVED		TITLE	SCALE
DE APPR.		SADDLE BILLET, 7075	NTS
DATE	09.04.23	COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: D6101-005
 DATE: FEB 03 2018

PO / BATCH NO: 038795/5038651

MATERIAL CERT REC'D: yes **FEB 08 2018** THICKNESS ORDERED: 2.500
 QUANTITY RECEIVED: 35 60 pcs 60 **DAS** THICKNESS RECEIVED: 2.500
 QUANTITY INSPECTED: 35 60 pcs 60 **11** SHEET SIZE ORDERED: N/A
 QUANTITY REJECTED: 0 **9-89** SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y ☒ N	
CORRECT FINISH	☒ Y N	
CORROSION	Y ☒ N	
CORRECT GRAIN DIRECTION	☒ Y N	
CORRECT MATERIAL PER M-DRAWING	☒ Y N	<u>Ams-QQ-A-250</u>
CORRECT THICKNESS	☒ Y N	
PHOTO REQUIRED	Y ☒ N	
CORRECT REF # TO LINK CERT	☒ Y N	<u>Heat # 406121 - 21711486</u>
CORRECT MATERIAL IDENTIFICATION	☒ Y N	
CORRECT M# ON THE MATERIAL	☒ Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y ☒ N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y ☒ N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS 11</u> DATE: <u>9-89 FEB 03 2018</u>	SIGNED OFF BY: _____ DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in:

**Castle Metals®**

A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 2

Shipment No: 3500985

Ship From: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped 01-FEB-18	F.O.B. ORIGIN	Freight Terms Prepaid		Carrier MANITOULIN		BOL No 3500985-2	

Shipment Details	Final Destination Branch - TOR
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Order No 5017058	Line No 1	Item No 752241.MO	Description 2.5000.PL.7075.T7351.ALUMINUM.USI. 8.25" X 5" CUT RECTANGLE TO 8.25 IN () X 5 IN () SPECIFICATIONS: AMS-QQ-A-250/12				
Purchase Order No 38795		Part Number YOUR ITEM NUMBER: D6101-005	Ordered Qty 60.00 PCS			Invoice Qty 35.00 PCS	
Details		ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS					
Delivery No.	Mill/Source	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
121576716		 4061311		34			362.6305
121576716		 211711488		1			10.6656

Date Printed: 01-FEB-2018 02:43:07 PM



Castle Metals®

A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 2 of 2

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A. M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:

Date:

Name:

FEB 01 2018





SHIP TO: HADCO METAL TRADING CO. LLC SHIP TO STOCK 555 STATE ROAD BENSALEM, PA 19020
SOLD TO: HADCO METAL TRADING CO. LLC 555 STATE ROAD BENSALEM, PA 19020

**KAISER
ALUMINUM**
Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4459835

CUSTOMER PO NUMBER: 094366-1	WORK PACKAGE:	CUSTOMER PART NUMBER:	SHIP RUN/LOAD: 103895/14	GOV'T CONTRACT NUMBER:	
KAISER ORDER NO. 1233414-1	SHIP DATE: 17-APR-2017	ALLOY: 7075	CLAD: BARE	TEMPER: T7351	PRODUCT DESCRIPTION: KaiserSelect Plate
WEIGHT SHIPPED 7752 LB	QUANTITY: 4 PCS EST.	TRUCK BIL #: 2066336	GUAGE: 2.5000 IN (63.5000 MM)	DIAMETER/WIDTH: 51.500 IN (1306.1 MM)	LENGTH: 147.000 IN (3735.8 MM)

MHU 2096689: LOT 213777B6: 1 pieces:
MHU 2098580: LOT 217114B8: 2 pieces:
MHU 2098582: LOT 217114B8: 1 pieces:

Certified Specifications

AMS 4078/RevJ
ASTM B 209/Rev14
BSS 7055/RevB
DPS 4 713/RevAK
MMS 159/RevT

AMS-QQ-A-250/12/RevA
ASTM B 594/Rev13
CMMP 025/RevV
GAMPS 9101/RevB/AmdSCN1
PS 21211/RevP

AMS-STD-2154/RevA
BAC 5439/RevJ
CSTI 006/RevE
GSS16100/RevG/Amd1

Test Code: 4297

Lot: 213777B6 Cast 397

Drop 35

Test Results

Ingot 1

Melted in USA

(ASTM E8/B557)
(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPa)	Yield KSI (MPa)	Elongation %
	T7351	LT / 2 (Min:Max)	70.4 : 70.6 (485 : 487)	59.2 : 59.9 (405 : 413)	10.9 : 11.5

(ASTM E1004)
(EN 2004-1)

Conductivity %IACS :	41.7 Min	41.8 Max
(MS/M) :	24.2 Min	24.2 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.09	0.17	1.5	0.04	2.4	0.20	5.8	0.03	0.01	0.02	TCT 0.05

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4459835

Lot: 217114B8 Cast: 407 Drop: 06 Ingot: 5 Melted In: USA

(ASTM B8/B557)
(EN 2002-1)

Tensile:	Temp:	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	77351	LT / 2 (Min:Max)	71.0 : 73.0 (490 : 503)	59.4 : 62.0 (410 : 427)	10.9 : 11.6

(ASTM E1004)
(EN 2004-1)

Conductivity %IACS :	40.4 Min	41.1 Max
(MS:MI) :	23.4 Min	23.8 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.07	0.14	1.5	0.03	2.5	0.19	5.5	0.03	0.01	0.01	TOT 0.05

ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075												
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

TEST NOTES

Metal represented by this test report was 100% Type 1 (immersion) ultrasonically tested from one side with 3mm dead zones top and bottom and meets the Class A and Class B requirements of all specifications referenced on this test report. No surface marking or sonic indications is performed.

CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100 and ISO 14001 certified, and hereby certifies that all material shipped under this order, has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein. All test equipment and measuring devices are calibrated and certified in accordance with applicable specifications. For material thicknesses outside specification limits, mechanical properties are as shown. Parent and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture. All material in the United States of America or a qualifying country per DFARS 225.672-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 225.225 for domestic content. This metal has been processed in compliance with AMS 2772, where applicable. It is mercury free, within the limits of detection of ASTM E1136, and is in compliance with RoHS 2, European Union Directive 2011/65/EU. It is in compliance with European Chemical Agency (ECHA) REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates. It is free of conflict minerals as defined in Section 1502 of the Dodd-Frank Act. It is free of weld repair. It meets the required requirements of EN12024, Table 3.1. Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file subject to examination. Test reports shall not be reproduced without the written approval of the Kaiser Aluminum Laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

James Hemenway

JAMES HEMENWAY, TECHNICAL PROCESS MANAGER

CERTIFIED INSPECTION REPORT

Arconic

DAVENPORT WORKS 4879 State Street Bettendorf, IA 52722

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet, the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material and the composition limits and had the mechanical properties shown on the face of this sheet.

This test report shall not be reproduced except in full, without the written approval of the Quality Department. No alteration, addition or other change is authorized to be made to this certificate. The recording of false, fictitious, or of untrue fraudulent statements or omissions on this certificate by any recipient may be punished as a felony under applicable law.

For:

S. N. Smith
Nandu Smithson
Manufacturing Director - Davenport & Bettendorf

Terence Thom
Terence Thom
Quality Assurance Manager

3400984 0
Ship Date B.L. No. Invoice No. Arconic No. Item
2018-01-13 11622516 00000 1000966375-4 DP-66375-G1-4
P.O. No./Govt Contract No. Customer Arconic Item
101169 Lot: 11 HADCO METAL TRADING G041175305R01

Page 2 of 2

CM: 0260750.1 -Specification Limits (cont.)
T7351 Elec. Cond. (EC) 1 MIN 38.0 PCT

Chemical Composition

	SI	FE	CU	MN	MG	CR	ZN	TI	Other Each	Other Total	Aluminum
Max	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.15	
Min			1.2		2.1	0.18	5.1				REMAIN

Alloy 7075
Lot: 406131 - Mechanical, Physical, Metallography, Quantometer Results

No->	UTS	TYS	EL40
Temp Dir Test	KS1	KS1	PCF
T7351 Long Transv. 3	71.1	60.2	10.4
	71.2	60.4	10.3
	70.9	60	10.2

T7351 Elect Cond WACS 41.0 41.0 40.9 PCT

Cast Number	Chemical - ORG	SI	FE	CU	MN	MG	CR	ZN	TI	Other Each	Other Total
H9440024	Actuals	0.07	0.26	1.6	0.03	2.5	0.19	5.5	0.02	< 0.05	< 0.15

This material was melted in the United States or a Qualifying Country (REF DFARS 225.972.1(a)); it was manufactured in the United States

RECERTIFIED
COPY

CERTIFIED INSPECTION REPORT

Arconic

DAVENPORT WORKS 4879 State Street Bettendorf, IA 52722

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.

This test report shall not be reproduced except in full, without the written approval of the Quality Department. No alteration, addition or other change is authorized to be made to this certificate. The recording of facts, figures, or other data in this certificate or on this certificate by any recipient may be punished as a felony under applicable law.

Per:

[Signature]
Manufacturing Director - Davenport A Sales Office

[Signature]
Terence Thom
Quality Assurance Manager

3400984 0
Ship Date B.L. No. Invoice No. Arconic No. Item
2018-01-13 11622616 00000 1000966375-4 DP-66375-01-4
P.O. No./Cust Contract No. Customer Arconic Item
101169 Lot: 11 HAUCCO METAL TRADING 6041175305R01

Page 1 of 2

Ship To: HAUCCO METAL TRADING CO LLC
HAUCCO METAL TRADING CO LL
555 STATE RD
ATTN: ACCOUNTS PAYABLE
REHSALAN, PA 19020

Item Description
2.5 IN TR (1.075 - .075) X 51.5 IN W (1.3125 -
0.000) X 147.0 IN LH (1.5 - 0.01) (H) A/T 7075-
T7351 RECTANGLE MILL FINISH, US1 3MM DEAD ZONE REQ'D BOTH SIDES.
SAMED. AMS-STD-2154 REV C AMS407B REV J
CMP025 REV V ((MARKED)) KRAFT PAPER
INTERLEAVED MAX CROSS
SKID WGT: 4500 LB OURN TOL +/-30 & US1 CL
A 3 MM COR 0260750 REV 01 CUST REQ 18-01-
01 *** W/E 18-01-06 ***

RECERTIFIED TO AMS QQA 250/12 AND DPS4.713 WITH THE EXCEPTION TO MARKING.
CUSTOMER ASSUMES ANY RISK REGARDING HANDLING, STORAGE, OR PROCESSING
WHICH MAY HAVE ALTERED PROPERTIES OR PRODUCT FORM FROM THAT AS ORIGINALLY
DELIVERED.

Run	Package Ticket	Lot	Weight	Quantity	UCM	Inspector Clock Numbers
1	436199	406131	3834	2	PC	47419
2	436201	406131	4070	2	PC	47419
3	436202	406131	3834	2	PC	47419
			11738	6		

Notes for COR: 0260750.1

THIS MATERIAL HAS BEEN ULTRASONICALLY INSPECTED USING TYPE 1, UT IMMERSION METHOD.

COR: 0260750.1 -Specification Limits

Temp	Dir	UTS	TYS	ELAD
		KSI	KSI	PCT
T7351	Long Transv.	Max	63.9	
		Min	66.0	52.0

RECERTIFIED
COPY

1/19/18 ML

